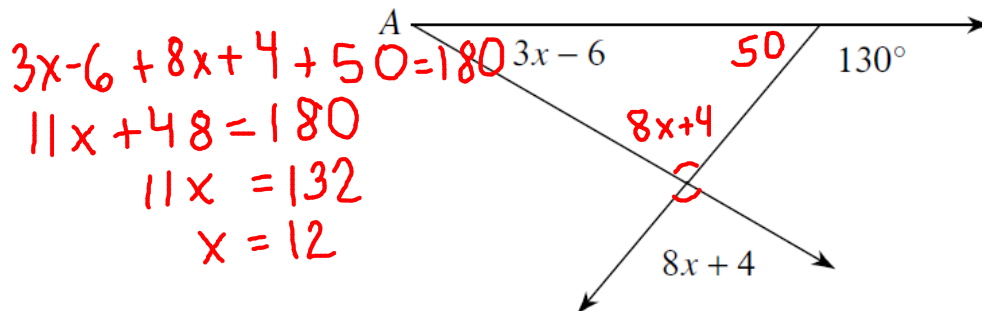


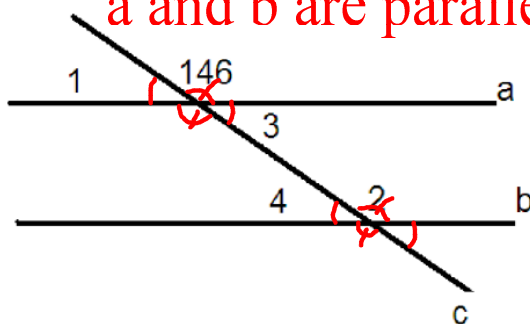
$$\begin{aligned}
 55 + 54 &= 109 \\
 180 - 109 &= 71 \\
 71 &= x + 74 \\
 -3 &= x
 \end{aligned}$$



$$\begin{aligned}
 3x - 6 + 8x + 4 + 50 &= 180 \\
 11x + 48 &= 180 \\
 11x &= 132 \\
 x &= 12
 \end{aligned}$$

## Geometry Review – Triangles and Angles

a and b are parallel



- 1) Angle 1 34
- 2) Angle 2 146
- 3) Angle 3 34
- 4) Angle 4 34

Define, in words, the following and state which segment, in the image below, matches the description.

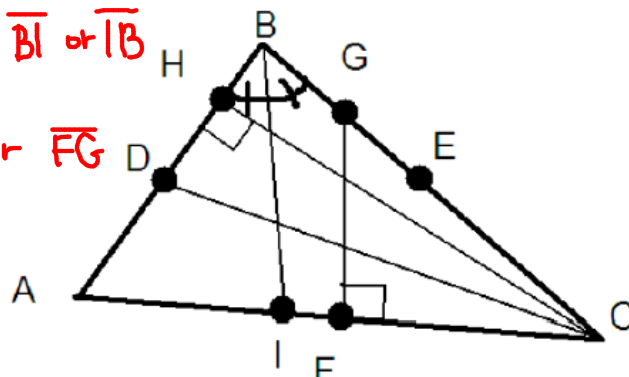
D, E, and F are the midpoints of each side.

5) median *mid to vertex  $\overline{CD}$  or  $\overline{DC}$*

6) altitude *vertex,  $90^\circ$   $\overline{AC}$  or  $\overline{CA}$*

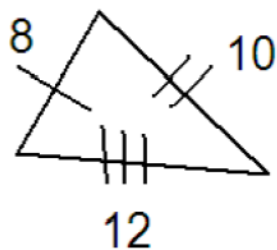
7) angle bisector *cuts  $\angle B$  or  $\angle B$   
angle in half*

8) perpendicular bisector  
*mid,  $90^\circ$   $\overline{DE}$  or  $\overline{ED}$*



*SSS ASA SAS AA HL*

Name the type of congruence that each pair of triangles displays, and fill in the missing values, if applicable.

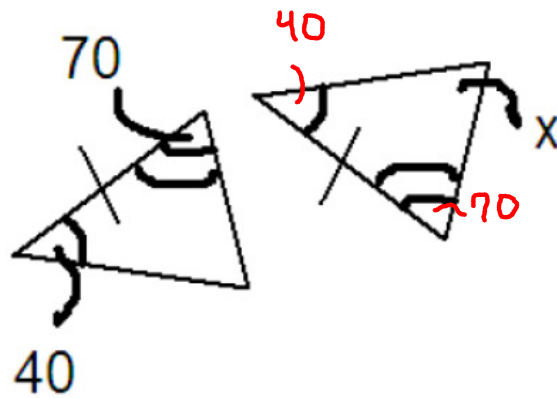


9) Type of congruence *SSS*

10)  $x =$  *10*

11) type of congruence **ASA**

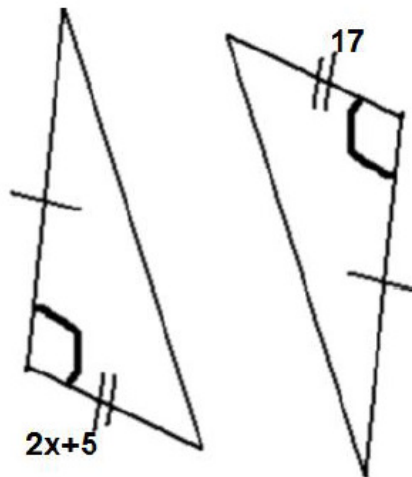
12)  $x = 70$



13) type of congruence **SAS**

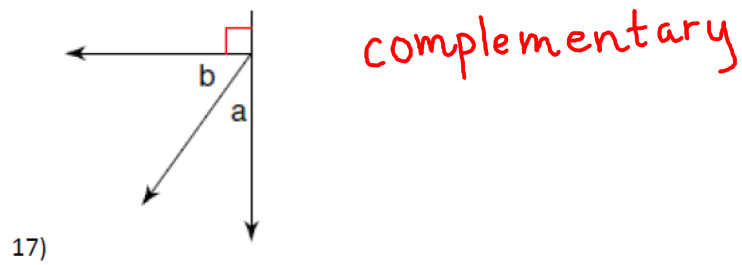
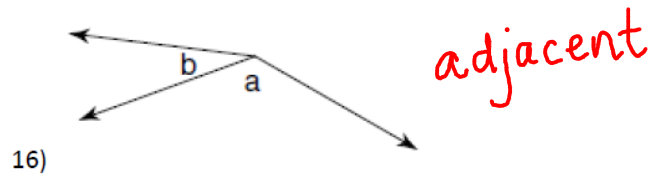
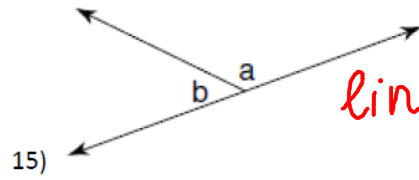
14)  $x = 6$

$$\begin{aligned} 2x + 5 &= 17 \\ -5 \quad -5 \\ \hline 2x &= 12 \\ x &= 6 \end{aligned}$$

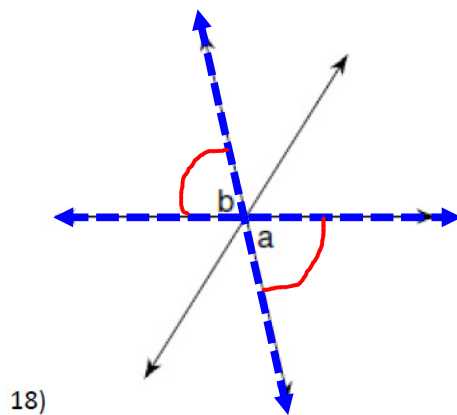


Name the relationship: complementary, linear pair, vertical, or adjacent.

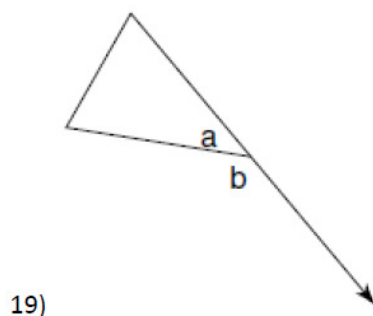
90 180 ~~X~~ next to  
=  
linear pair



vertical

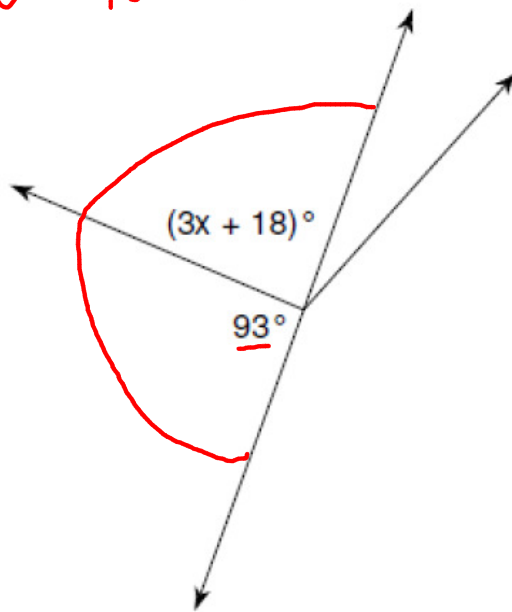


linear pair



Find the value of  $x$ .

$$180 - 93 = 87$$

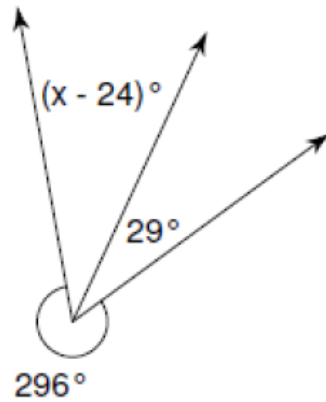


$$\begin{array}{r} 3x + 18 = 87 \\ -18 \quad -18 \\ \hline \end{array}$$

$$\begin{array}{r} 3x = 69 \\ \hline 3 \quad 3 \end{array}$$

$$x = 23$$

20)



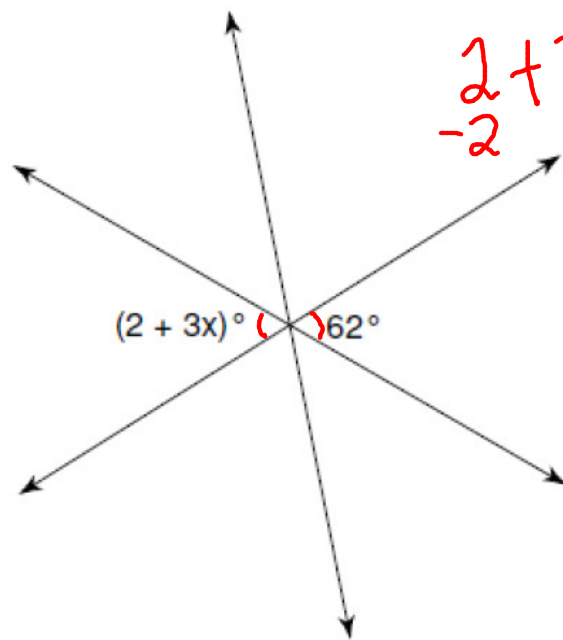
21)

$$360 - 296 = 64$$

$$64 - 29 = 35$$

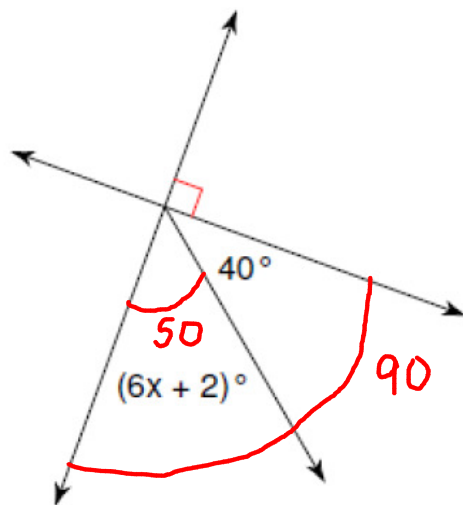
$$\begin{array}{r} x - 24 = 35 \\ +24 \quad +24 \\ \hline \end{array}$$

$$x = 59$$



$$\begin{aligned}
 2 + 3x &= 62 \\
 -2 &\quad -2 \\
 \hline
 3x &= 60 \\
 \frac{3x}{3} &= \frac{60}{3} \\
 x &= 20
 \end{aligned}$$

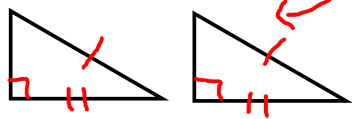
22)



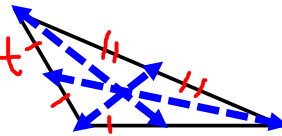
$$\begin{aligned}
 6x + 2 &= 50 \\
 -2 &\quad -2 \\
 \hline
 6x &= 48 \\
 \frac{6x}{6} &= \frac{48}{6} \\
 x &= 8
 \end{aligned}$$

23)

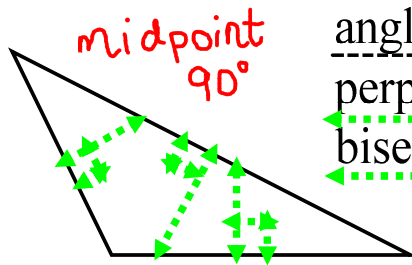
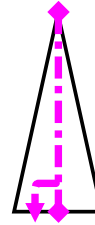
Congruence  
 SSS SAS  
 ASA AAS HL



median  
 midpoint  
 vertex



altitude  
 vertex  
 90°



angle bisector  
 perpendicular  
 bisector

